

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. **(CURRENTLY AMENDED)** A method of transforming an *Allium* genus plant comprising the following steps:

- (a) transforming embryo cells of the *Allium* genus plant with DNA sequences via a vector or direct gene transfer to produce transformed plant material, wherein transformation is achieved by:
 - (i) transferring embryo tissue into a preparation of wounding the embryo cells and transferring embryo cells into a suspension of *Agrobacterium*,
 - (ii) transferring the embryos embryo cells from step (i) to a culture medium;
 - (iii) co-cultivating the embryo cells and the *Agrobacterium* attached to the embryo cells for a period of 1-12 days from the end of step (ii);
- (b) selecting [[the]] transformed plant material derived from step (a), by transferring the embryo cells to a selection medium containing the appropriate selection agents to kill the agrobacteria and preferentially grow the transgenic embryo cells to produce transformed plant cells material;
- (c) culturing the tissues from (b) to produce secondary embryos and regenerating the transformed plant material transformed plant material from (b) to produce secondary embryos and regenerating transformed plant material from the secondary embryos; and

(d) obtaining a transformed *Allium* genus plant from the secondary embryo;
wherein the method of transforming is carried out without a passage through a callus
phase.

2. **(CURRENTLY AMENDED)** The method according to claim 1 wherein the *Allium* genus plant is transformed by co-cultivation of *Allium* tissue with a strain of *Agrobacterium* containing a plasmid with a functional T-DNA region that is capable of transfer to plant cells ~~and that following this transformation, *Allium* tissue is regenerated by preferential selection.~~

3. **(PREVIOUSLY PRESENTED)** The method according to claim 1 or 2 in which the *Allium* genus plant is onion.

4. **(PREVIOUSLY PRESENTED)** The method according to claim 1 or 2 wherein the embryo cells are transformed using a binary vector.

5. **(PREVIOUSLY PRESENTED)** The method according to claim 1 in which the embryo cells are inoculated with an *Agrobacterium* strain containing a T-DNA active for transformation.

6. **(PREVIOUSLY PRESENTED)** The method according to claim 1 or 2 in which immature embryos are used.

7. **(CURRENTLY AMENDED)** A method of transforming an *Allium* genus plant using immature embryos as an explant source, comprising:

- (a) isolating immature embryos of the *Allium* genus plant to be transformed;
- (b) transforming the immature embryos by inoculating the immature embryos

with an *Agrobacterium* strain and wounding the immature embryos in a culture medium, wherein transformation is achieved by:

- (i) transferring embryo tissue into wounding the embryo cells and transferring the embryo cells into a preparation of *Agrobacterium*,
- (ii) transferring the embryo cells from step (i) to solid medium, and
- (iii) co-cultivating the embryo cells and the *Agrobacterium* attached to the embryo cells for 1-12 days from the end of step (ii);

(c) transferring the immature embryos to a selective medium of P5 medium plus 10 mg/l geneticin and 200 mg/l timentin or 5 mg/l Basta and 200 mg/l timentin, or other appropriate selective agents agent to kill the agrobacteria and preferentially select the transgenic *Allium* cells;

(d) culturing the immature embryos in the dark to produce secondary embryos;

(e) selecting putative transgenic cultures of transgenic Allium cells from step (c) by preferential growth of the transgenic cells;

(f) regenerating plants; and

(g) producing a transformed *Allium* genus plant.

8. **(PREVIOUSLY PRESENTED)** The method according to claim 1 wherein the plant is transformed with an *Agrobacterium tumefaciens* strain containing a vector which carries a selectable DNA of interest.

9. **(PREVIOUSLY PRESENTED)** The method according to claim 8 in which the selectable DNA of interest confers herbicide resistance to the transformed plant.

10. **(CURRENTLY AMENDED)** The method according to claim 9 in which the DNA conferring herbicide resistance DNA of interest encodes bar resistance or glyphosate resistance.

11. **(CURRENTLY AMENDED)** The method according to claim 8 in which the selectable DNA of interest is encodes an antibiotic resistance DNA of interest.

12. **(CURRENTLY AMENDED)** The method according to claim 11 in which the antibiotic resistance DNA of interest is the encodes *nptll* DNA of interest.

13. **(CANCELED)**

14. **(PREVIOUSLY PRESENTED)** A transformed plant when produced by the method of claim 1.

15. (CANCELED)